
मोपेड के लिये हब धुरी, फ्रंट — विशिष्टि
(पहला पुनरीक्षण)

Hub Axle, Front for Moped —
Specification
(First Revision)

ICS 43.140

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भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली – 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI-110002
www.bis.gov.in www.standardsbis.in

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Automotive Prime Movers, Transmission System and Internal Combustion Engines Sectional Committee and approval of the Transport Engineering Division Council.

This standard was first published in 1983. The first revision of this standard is being undertaken to update the standard and to incorporate latest technological advancement/development that has taken place in various fields.

The composition of the Committee responsible for the formulation of this standard is given at Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*).'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

HUB AXLE, FRONT FOR MOPED — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers requirements of front hub axle for mopeds.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below:

IS No.	Title
1573 : 1986	Electroplated coatings of zinc on iron and steel (<i>second revision</i>)
1501 (Part 1) : 2013/ ISO 6507-1 : 2005	Metallic materials — Vickers hardness test: Part 1 Test method (<i>fourth revision</i>)
1586 (Part 1) : 2012/ ISO 6508-1 : 2005	Metallic materials — Rockwell hardness test: Part 1 Test method (scales A, B, C, D, E, F, G, H, K, N, T) (<i>fourth revision</i>)
2473 : 1975	Dimension for centre holes (<i>first revision</i>)
2500 (Part 1) : 2000/ ISO 2859-1 : 1999	Sampling inspection procedures: Part 1 Attribute sampling plans indexed by acceptable quality limit (AQL) for lot-by-lot inspection (<i>third revision</i>)

IS No.

Title

4218 (Part 2) : 2001/ ISO 261 : 1998	ISO general purpose metric screw threads: Part 2 General plan (<i>second revision</i>)
5517 : 1993	Steels for hardening and tempering (<i>second revision</i>)

3 SHAPE AND DIMENSIONS

The shape and dimensions shall be as given in the Fig. 1. The threads shall conform to IS 4218 (Part 2). If an additional centre hole is drilled it shall conform to IS 2473.

4 MATERIAL

The material used for manufacturing hub axles shall conform to grade 42Cr₄Mo₂ of IS 5517.

If material other than above grade is used, it shall be suitably heat treated to achieve physical properties equivalent to the above material.

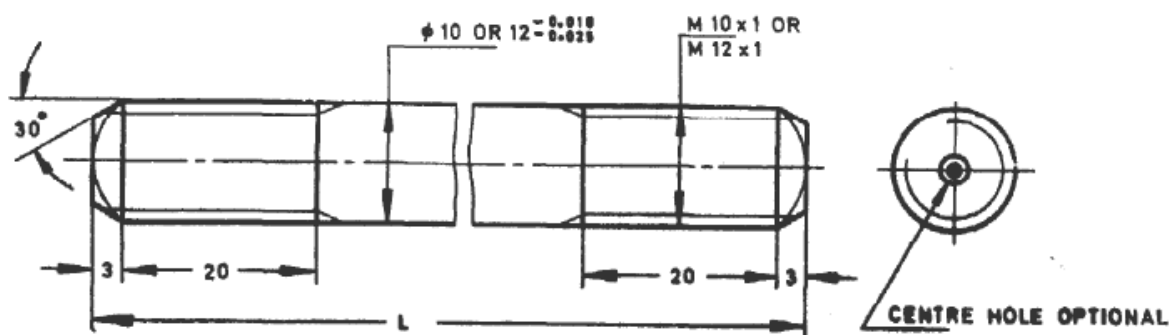
5 HARDNESS

Hardness of the axle shall be at least 250 HV (22 HRC). If heat treated, the hardness shall not exceed 285 HV (28 HRC). The test shall be carried out as per IS 1501 (Part 1)/ IS 1586 (Part 1) respectively.

6 FINISH

The axle shall have a smooth finish and shall be chemically treated or zinc plated to service condition No. 3 of IS 1573.

The straightness and concentricity shall be within 0.025 mm and 0.1 mm, respectively.



Note — 'L' may vary to suit the requirements. The ends may also be rounded off.

FIG. 1 SHAPE AND DIMENSIONS OF FRONT HUB AXLE

7 PACKING

Axles shall be packed in cartons after wrapping in oil coated paper so as to prevent any damages.

8 MARKING

8.1 Manufacturers' trade-mark or name and size designation (for example, 10 or 12) shall be embossed or punched on the axles. Any other marking as per best prevalent trade practice may also be followed.

8.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

9 SAMPLING

Unless otherwise agreed upon between the supplier and purchaser, the inspection sampling shall be as per IS 2500 (Part 1).

ANNEX A*(Foreword)***COMMITTEE COMPOSITION**

Automotive Prime Movers, Transmission System and Internal Combustion
Engine Sectional Committee, TED 02

<i>Organization</i>	<i>Representative(s)</i>
Automotive Research Association of India, Pune	SHRI N. V. MARATHE (Chairman)
Ashok Leyland Ltd, Chennai	SHRI D. BALAKRISHNAN SHRI RAVI M. (<i>Alternate</i>)
Association of State Road Transport Undertakings, New Delhi	SHRI R. CHANDRABABU SHRI ULLAS BABU (<i>Alternate</i>)
Automotive Research Association of India, Pune	SHRI H. A. NAKHWA SHRI P. G. BHAT (<i>Alternate</i>)
Automotive Component Manufacture Association, New Delhi	SHRI UDAY HARITE SEEMA BABAL (<i>Alternate</i>)
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BEML Limited, Mysore	SHRI MAHADEV NELLUR SHRI M. SASI KUMAR (<i>Alternate</i>)
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CONCERT, Chennai	SHRI S. SAINATH SHRI MOHAN MAHADEVAN (<i>Alternate</i>)
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Indian Diesel Engine Manufacturers Association (IDEMA)	SHRI PRASANTH RAVI
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Indian Institute of Technology (IIT), New Delhi	DR S. P. SINGH DR SUDIPTO MUKHERJEE (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
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Ministry of Shipping, Road Transport & Highways, New Delhi	SHRI K. C. SHARMA
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Rajkot Engineering Association, Rajkot	SHRI JAYANT PITHWA SHRI CHINTAN R BHANDERI (<i>Alternate</i>)
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Member Secretary
SHRI SHARAD KUMAR,
SCIENTIST C (TED), BIS

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402

Website: www.bis.gov.in

Regional Offices:

Telephones

Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: Plot No. 4-A, Sector 27-B, Madhya Marg CHANDIGARH 160019	{ 265 0206 265 0290
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

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